

FOLIO

The 1981 Medal for Achievement In Physics to Werner Israel

After an education at the University of Capetown with a BSc in 1951 and an MSc in 1954, Werner Israel went to the Dublin Institute for Advanced Studies where he spent the period 1956-58 working toward his PhD. He came to The University of Alberta in 1958 as an Assistant Professor in the Department of Mathematics. He was appointed Professor of Physics at The University of Alberta in 1972, a position he holds to this day.

Werner Israel is well known for his pioneering work on gravitational collapse which led up to the work on the concept of event horizon and, finally, to his best known work on the uniqueness of static black-holes done in 1967-68. This last work was generalized a few years later to stationary black-holes by Carter and Hawking. His contributions in the area of relativistic kinetic theory (1963) and thermodynamics of black-holes (1972-73) have also been pioneering in nature and well recognized by workers in these fields. He has moved with the times and is currently interested in the quantum aspects of gravity.

Werner Israel's contributions to physics have been recognized by various awards. In 1972, he was elected a Fellow of the Royal Society of Canada. During 1974-75, he went to Caltech as the Sherman-Fairchild Distinguished Scholar. During 1975-76, he was Senior Visitor at Cambridge and, during 1976-77, he spent a year at Henri Poincaré Institute in Paris as Maître de



Recherche Associé.

He has done his share of work to bring major relativity conferences to Canada. He was the Chairman of the Organizing Committee for the Banff Summer School on Relativity, Astrophysics and Cosmology in 1972. He was the Chairman of the Programs Committee for the 8th International Meeting on General Relativity and Gravitation at Waterloo in 1977 and the Royal Society of Canada Einstein Centenary Symposium in 1979.

Werner Israel is a particularly lucid lecturer. His international reputation has attracted many researchers in general relativity

and graduate students to The University of Alberta. A few years ago all but one of the new applicants to the Theoretical Physics Group at Alberta wanted to work with him.

In the Physics Department of The University of Alberta his quiet manner, incisive questions and comments in seminars, and thoughtfulness are much appreciated by his colleagues. It is indeed fitting that the Canadian Association of Physicists should recognize Werner Israel's continued contributions to physics by awarding him this year's Medal for Achievement in Physics. □

Forum on the Human Side of Energy Encourages Many Viewpoints

The Hon. Mr. Justice Thomas Berger, author of the landmark report *McKenzie Valley Pipeline Inquiry*, will be the keynote speaker at the Second International Forum on the Human Side of Energy to be held 16 to 19 August 1981 at The University of Alberta.

The goal of the Forum is to increase participant awareness and understanding of resource development upon communities. The Forum will, according to its organizers, provide a unique and exciting exchange of ideas, information, experiences, and research regarding the obvious and not so obvious effects of energy development upon people,

their lifestyles, and their communities. The program is designed for individual participation and involvement to encourage greater appreciation of many viewpoints.

A varied program will be offered. Among the topics to be discussed are: "Accommodation vs. Conflict: Ethical and Value Issues in Energy and Other Natural Resource Developments;" "The Impact of Energy Development on Native Groups;" "Energy Needs of the Future;" and "Boomtowns or Doomtowns? . . . The Impact of Energy Developments on the Elderly."

Dialogue between community, industry and government representatives with a positive emphasis

on solutions will be included.

Many delegates from both Canada and the United States will be attending. Summaries of their energy-related interests and experiences will be collected in a network directory and distributed prior to the opening of the Forum. The thought here is to initiate the mutual sharing of interests and experiences.

The deadline for registration is 15 July and the fee is \$60. Registration forms can be obtained by contacting: The Human Side of Energy, The University of Alberta, Corbett Hall, Edmonton, Alberta T6G 2G4. Telephone: (403) 432-3035. □

Engineering Students Obtain Jobs

Placement statistics presented to the Industrial Advisory Committee of the Student Work Experience Program (SWEP) at its meeting of 18 June 1981, show that students who register in the program are having success in obtaining summer and permanent employment.

H. Brent Scott, President of Syncrude Canada Ltd., and Chairman of the Industrial Advisory Committee, commended the extra effort made by SWEP personnel that resulted in an increase in the number of companies attracted to the campus in the last year. Mr. Scott also noted a significant improvement in placement statistics.

P. Kushnir, Director of SWEP, reported that the number of opportunities available for students in the oil and gas industry had declined. She noted, however, that the overall percentage of placements had increased and that students had found opportunities in other sectors of the economy. Mrs. Kushnir said that the statistics, accurate for 31 May

1981, showed that nearly 80 percent of the 1,372 engineering students who registered had obtained employment. Of those who were employed, 92 percent were in engineering-related jobs. Mrs. Kushnir felt that students were becoming better informed about the role of SWEP in attracting potential employers to the campus.

Peter Adams, Dean of Engineering, was especially pleased with the increase in the number of first-year engineering students who

had obtained discipline-related employment—60 percent of that group had obtained employment in their field in comparison with 42 percent in the previous year. Dean Adams said that companies appeared to have become more willing to employ students at the appropriate level for their technical background and he was encouraged by the trend that had shown in the statistics for second and third-year student placements too.

"The success of the placement

program this year augurs well for the introduction of the cooperative education program which entails a more formal work experience component than summer employment normally provides. On the basis of this year's encouraging employment statistics, the increased enrolment in the Faculty resulting from the cooperative education program will pose few employment problems—especially with the opportunities provided by any future mega-projects," Dean Adams said. □

EBA Engineering Continues Support for Geotechnical Engineering Program

On 8 June 1981, Elmer Brooker, President of EBA Engineering Consultants Ltd., presented a cheque to The University of Alberta's Faculty of Engineering to support the graduate program in geotechnical engineering. The contribution of \$3,000 by EBA Engineering represents a continuing commitment to the program since a similar grant was made for the 1980-81 academic year.

The EBA Bursary is intended to provide support for graduate students who are carrying out research for an MSc or PhD in geotechnical engineering. However, EBA Engineering is also involved in the non-thesis MEng program that can be taken in a cooperative education mode. The MEng Industrial Cooperative Program in geotechnical engineering normally requires two years to complete. The participant completes one term at the University and follows the academic work with a calendar year of employment with a cooperating employer. A second term at University completes course requirements and a few additional months may be required to complete the MEng project.

The six faculty in the Depart-



Pictured above discussing the bursary are (right) Elmer Brooker, President of EBA Consultants, and Peter Adams, Dean of the Faculty of Engineering.

ment of Civil Engineering, who are involved in geotechnical engineering courses and research, supervise approximately fifty graduate students, including ten students who are enrolled in the

PhD program. The geotechnical group is especially noted for research concerned with problems associated with permafrost, tunnelling, earth dams, and oil sand mining. □

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The Chancellor Addresses Extension Students

On 12 June 1981, the Chancellor, Jean B. Forest, attended a ceremony honoring those people who had successfully completed certification programs offered through the Faculty of Extension. The address Mrs. Forest made on that occasion is printed here, not least because of her particularly interesting review of the Faculty—an operation many people in our University know very little about.

Chancellor Forest

Some of you may know that the Department of Extension was founded in 1912—only four years after the birth of the University. In his inaugural address in 1908, Henry Marshall Tory, the first President, stated: “a University should be the most practical of all institutions. It should strive to find the answers to the economic and social problems of common everyday people and then share its knowledge with them.” On another later occasion he said: “the job of the Extension Department is to find out from the people what the University can do for them beyond the classroom and the laboratory.”

For sixty-three years the Department of Extension operated on Dr. Tory's principles and fulfilled its mission in a most worthy and worthwhile way. In 1975, it was granted the status of a full fledged Faculty, in order to give it the recognition it so richly deserved and the credibility to coordinate and facilitate “a more academic, perhaps more modern approach to adult education.” I was so pleased, as a member of the Board of Governors, to be involved in that decision and I can honestly say that in the ensuing years the Faculty has lived up to the expectations of the Board not only in the increasing number of programs it has offered, but also in the quality and value of those programs. Through them, it has served as a sort of two-way pipeline between the University and the community and this

function has been summed up very succinctly in the foreword of the handbook, *Beyond the Classroom*.

“Methods and techniques have changed materially, but there has always been a group of dedicated people to perform a catalytic function between the University and the community. They have been responsible directly or indirectly, for a two-way flow of information: an interpretation of the knowledge of the University to the community and, conversely, an interpretation of the major needs, problems and opportunities of the community to the University.”

This two-way communication is most important if there is to be the kind of interaction between “town and gown” which will break down the barriers to the ivory tower and enable the University to become the vibrant, vital, busy brain centre of the community that it should be. As graduates of the various programs offered by the Faculty you now form some of the links in that line of communication—and don't underestimate your ability to serve your community and your University in this way. I wonder if you realize the number of registrations in the many programs offered by the Faculty of Extension?

Do you know for example that in the year 1980-81 there were over 9,000 registrations in the certificate programs such as yours and that that was an increase of over 2,000 from the year before. That besides this there were over 7,600 registrations in agriculture programs last year—an increase of over 2,600 students from the year before. Did you know that programs are also offered in adult education as a field of study and practice; continuing education for the helping professions; engineering; law; nursing; other business and technical education; resource development; public administration and local government; communication; com-

munity development; energy; fine arts; liberal studies; outdoor education; and supervision and leadership training? You name it and the Faculty of Extension has it. Would you believe that total student registration for the year 1980-81 was 35,126—an increase of more than 8,500 over the previous year?

So you see what I mean when I say that you shouldn't underestimate your influence because you and your colleagues in the Faculty make up a population equal to that of a fair sized city.

Of course, you're not at the University full-time, but do you realize that during a regular working day of the fall and winter terms there are about 32,000 people on campus? And this makes up the fifth largest community in Alberta.

A report recently released on the impact of The University of Alberta on the economy of Edmonton and the province of Alberta included statistics which showed that as of March 1980, the University employed 4,800 people on a regular basis plus an additional 2,300 part-time staff and graduate students. \$132.5 million—well over 85 percent of the operating budget—was paid in salaries and wages resulting in about \$96.6 million “take home” pay.

During the winter session, there were approximately 1,100 foreign students attending the University, each spending an average \$6,000 per year, for a total of \$6.6 million. Also, about 1,500 students from outside Alberta spent an estimated \$7.6 million in the community. Goods and services purchased were valued at \$26.2 million, of which 70 percent was spent locally. An additional \$32 million was spent on capital construction, and the University also received for dispersal some \$20 million in research grants.

If you added another ten percent to all these figures, you

would get the approximate impact of the University on the local economy for the year ended March 1981, and I quote you these figures just to indicate that quite apart from the educational and social contribution which the University makes to our community, it also makes a tremendous impact on the economy. As taxpayers as well as “users” you should be aware of this.

In the academic year 1980-81, we had over 18,000 full-time and over 3,00 part-time students enrolled in degree programs. Of these approximately 2,600 were graduate students from around the world. At Convocation last week, I conferred degrees upon some 3,500 students.

The University has what is called a bi-cameral system of governance: that is, it is jointly governed by two bodies. The Board of Governors is a group which in addition to the Chairman and a group of public members appointed by the Minister, is made up of the President, the Chancellor as ex officio members, and also other members from the Alumni, Faculty and student bodies. This is the body charged with the responsibility of operating the University. All members including the Chairman render their services without pay. The General Faculties Council is a large body chaired by the President, made up of Faculty and students, and is responsible for those decisions which pertain to academic and student affairs.

In addition, there is the Senate of the University which is not a governing body, but which has, under *The Universities Act*, the broad mandate of enquiring “into any matter which might tend to enhance the usefulness of the University.”

The Chancellor, who is the titular head of the University, chairs the Senate, presides over Convocation conferring all degrees, and is charged with the

responsibility of representing "the public interest at the University."

I don't know how many of you are aware that until the mid 1940s the Senate had all the powers of the present General Faculties Council, and, together with the Board of Governors, it covered all the areas of the administration of the University. (There was, of course, only one in the province at that time, but because the Senate refused, for reasons never disclosed but often speculated upon, to grant the traditional honorary degree to the then Premier of the Province, the Legislation was changed.) At the next sitting of the Legislature, the Senate was stripped of all powers except the power to grant honorary degrees. So Universities in Alberta are unique in Canada, in that there is a body of people associated with the universities which has no authority in academic or financial matters, but is charged along with the Chancellor with the responsibility of safeguarding the interests of the public and enhancing the usefulness of the University.

The Senate comprises sixty-two persons, all volunteers: seven ex officio members: the Chancellor, the President, the senior Vice-President, Dean of Extension, Dean of Students, and the President and Vice-President of the Alumni Association; eleven appointees of constituent bodies such as the Board of Governors, Deans' Council, General Faculties Council, non-academic staff, including five students (one of whom is a graduate student); nine members from the public appointed by the Minister of Advanced Education, and thirty members of the public elected by Senate. The Senate sees itself as the "public pipeline" between the University and the community it serves, striving always to familiarize the public with the aims and objectives, the program offerings and, at times, the problems of the University, and trying on the other hand to bring to the attention of the University and government the needs of the public or the many publics which it serves. Senate generally tries to

focus on issues of current importance, and these issues are often addressed by committees or task forces which delve into them and then present their reports for discussion and acceptance at the public meetings of the Senate, held five times a year. Recommendations from these reports are then forwarded to the University, to government or other agencies and we're pleased to say that many of them are implemented.

In an effort to better communicate with the public, the Senate has in recent years adopted the practice of holding one meeting each year out of town. We have been to St. Paul, and Fort McMurray and this year will travel to Edson, Hinton and Jasper for our September meeting. Senate also serves the public by having an observer sit in on the admission committee meetings where candidates are chosen for admission to the "quota" faculties, thus monitoring for the public the fairness employed in procedures and final choice.

As members of the public, you should be aware that you are entitled to nominate anyone for the position of a publicly elected member of Senate; or for Chancellor. Senate advertises for nominations for members each year, and this year it is advertising for nominations for the new Chancellor who will assume office next spring. If you are interested in any further information regarding these nominations you can simply phone or write the Senate Office at the University. This is a good way for members of the public to have input at the University and I would certainly urge you to do so.

The University needs all the help it can get by way of moral and financial support from the public. You have heard a great deal lately about the financial difficulties of the University brought about by a level of funding that, for a number of years, has not kept up with inflation. While I will not dwell upon that this evening, I would impress upon you that there is no way that the University can

continue its climb towards academic excellence or indeed maintain its present standards without a substantial infusion of funds.

Without adequate funding we will be doomed to stagnation and mediocrity, and that would be a pity.

It would be a pity in the life of any young University and it would be a particular pity here in Alberta where in the short span of seventy-three years since Senate first met on 30 March 1908, we have grown from an infant institution where five academics taught forty-five students to a ranking university where over 21,000 full-time and part-time students receive their instruction from hundreds of professors—some of international stature and renown—and where the level of research in a number of areas has earned this university world-wide acclaim.

It would be a pity here in Alberta, where modern development depends on research; where graduates are going to be required in increasing numbers in practically all the professions; where a booming economy is going to require the best brains in the world to keep it moving; where a better educated, more sophisticated, more socially and culturally aware populace will be demanding more and more of its University in the arts and humanities, in the social sciences, in athletics and recreation.

It would be such a pity that we simply cannot allow it to happen. The University must prove through creative and imaginative planning, through the excellence of its teaching and research, through the academic standing of its graduands, through the quality of its leadership and the contribution which it makes to the community at large—through all these achievements it must prove that ours is a University too valuable to be allowed to stagnate; that ours is a University which deserves the opportunity to develop in the future as it has in the past.

You and I, as members of the public, must do our part to

ensure that the University gets that opportunity. We must make the public aware of the tremendous value of the University to this community—what its capabilities as well as its limitations are and what can and should be done to exploit its potential. We must also make the University aware of the changing needs of the public and do all that we can to encourage and help the University to stretch itself to meet those needs.

If we do play our part then I am confident that the necessary resources will be made available—not just from government, but also from private sources—to enable the University to fulfill its role in our community.

In 1982, the University will celebrate the 75th anniversary of its first classes in 1908, when men of great vision, although they were faced with many problems which must have seemed more immediate and more pressing, courageously placed their priority on an institution of higher learning, and allocated a budget of \$25,000—a princeliy sum in those days—to establish The University of Alberta in Edmonton.

In 1983, the City of Edmonton and The University of Alberta, with support from the provincial government, will host the World University Games—an event which has never before been held in Canada or the United States and which will dwarf in magnitude the Commonwealth Games held here a few years ago.

I mention these two up-coming events as a measure of the University's remarkable growth and development over the years, and also by way of an invitation to each one of you to support your University in the time leading up to and during these events—so that it may continue to thrive in the years beyond.

We need your help and we count upon it. For while you may not be alumni in the strictest sense of the word, you are graduates of the Faculty of Extension and there is no one who can become better ambassadors for the University in the broader community which it

is called upon to serve.

I commend you for having taken the arduous task of furthering your studies while holding down full-time jobs. I congratulate you for having successfully completed those studies.

I hope that the University can be of service to you at some other time and in the meantime I trust that as members of the public you will be of service to your University.

Good luck and God bless. □

Engineering Faculty Advisory Board Established

At a meeting held on 18 June 1981, the Industrial Advisory Committee to the Faculty of Engineering agreed to expand its responsibilities as the result of a request from the Engineering Faculty Council. It was felt that although there is already significant interaction between the Faculty and business and industry through industry-sponsored professorships and departmental committees, no formal link exists between the Faculty and industry. It seemed that the Industrial Advisory Committee, with specific responsibilities in the area of student employment would, with a change in its mandate, be a ready-made Faculty Advisory Board.

"The members of our present Industrial Advisory Committee have shown a keen interest in the development and progress of our

work experience programs," noted P.F. Adams, Dean of Engineering. "It would be a distinct advantage for the Faculty if we could retain the present membership as founder members of the Advisory Board."

H. Brent Scott, President of Syncrude Canada Ltd. and Chairman of the Industrial Advisory Committee, felt comfortable with the increased responsibilities and said that the members of the Committee looked forward to being able to provide assistance in the general direction of the Faculty and to acting as a formal communication link with industry in the province.

Dr. Adams said it was important that interaction take place in view of the upsurge in interest in the development of technical personnel in Alberta. □

(inside the Hall) Convocation Hall, admission free.

South Side Folk Club
14 July. 8 p.m. The Battlefield Band from Britain. The Provincial Museum Theatre. Tickets at Mike's and HUB.

Films

Edmonton Film Society
6 July. 8 p.m. "Dona Flor and Her Two Husbands."
13 July. 8 p.m. "Laura Antonelli."
Tory Theatre. Tickets available at HUB, Woodward's, and at the door.

The National Film Theatre
2 July. 7:30 p.m. "The Divine Nymph."
9:10 p.m. "My Brilliant Career."
3 July. 7:30 p.m. "My Brilliant Career."
9:15 p.m. "The Divine Nymph."
Showings in Zeidler Hall in the Citadel Theatre.

Edmonton Public Library
Mondays. 12 noon. Brown bag cinema. Centennial Library Theatre. Admission free.

Theatre

Northern Light Theatre
Until 24 July. "St. Joan" by George Bernard Shaw.
Until 25 July. "Memoir" by John Murrell. Connor's Hill Tent. Tickets: 429-3110.

Workshop West
3 and 4 July. Auditions will be held for the coming season's plays. For appointment call 424-2422.

Grant MacEwan Community College

8, 9, 11, 12, 17, 19 July. 8 p.m.
"A Funny Thing Happened On The Way To The Forum."
10, 12, 15, 16, 18 July. 8 p.m.
"Pal Joey."
Performances in the Grant MacEwan College Theatre. Tickets available at the door.

Exhibitions

Shadows at Waldens
Until 4 July. Paintings by Dale Travis.
Ring House Gallery
28 June to 28 August. "Lansdowne Bird Paintings: 1958-1972" a collection of bird paintings by Victoria artist James Fenwick Lansdowne. (Gallery closed 1 July.)

Multicultural Heritage Centre
Until 5 July. "Parkland Potters and Weavers" with sketches by Lori Davis.
Until 7 July. "Heritage Days Photographs" by Helen Fitzpatrick, and "Nigerian Wood Sculpture" by Madukaego.
Settlers' Cabin a "living museum" of pioneer and ethnic crafts.
Handicraft Store features work by local artisans.
Library and Archives with pioneer photographs, tapes and maps.
Homesteaders' Kitchen serves lunch daily (except Mondays) noon to 2 p.m., coffee and dessert 2 p.m. to 4 p.m., and dinner Thursday evening from 5:30 p.m. to 7 p.m.
The Heritage Centre is located at 5411 51 Street, Stony Plain. Telephone: 963-2777.

Provincial Museum

Until 12 July. Chinese Canadian Heritage and Cultural Exhibition. Feature Gallery #2.
Continuing. "Canada!" a selection of photographs and poems from across the country. Orientation Gallery.

University Special Collections

Until 6 July. "Shakespeare: Printed, Performed and Perverted."
Until 4 September. "William Cowper, English Poet—250th Anniversary."
B37 Cameron Library: Opening hours 8:30 a.m. to 4:30 p.m. Monday to Friday.

Edmonton Art Gallery
Volunteer Tour Guides required. For information please call 429-6781.

Ukrainian Cultural Heritage Village

The Village is open to the public 10 a.m. to 6 p.m. daily until 31 August. It is located 45 km. east of Edmonton on Highway 16, and admission is free.

Alberta Natural Resources Science Centre

The Centre consists of six permanent pavilions with displays that describe and interpret how Alberta's natural resources are put to use. Opening hours are Saturdays and Sundays from 11 a.m. to 5 p.m. School tours are available Monday to Friday. Admission and parking are free. The Centre is located east of Edmonton at the new Strathcona Science Park. For further information and bookings phone 427-9490.

Edmonton Public Library

3 July. Prints and drawings by Darlene Kalyuka. Foyer Gallery.
6 July. "Newfoundland Photography 1849-1949." Photography Gallery.

Devonian Botanic Garden

The Garden will be open to the public from May to September as follows: Weekdays 10 a.m. to 4 p.m. Saturdays, Sundays and Public Holidays 12 noon to 6 p.m. Tours can be arranged by calling 987-3054.

Rutherford House, 11153 Saskatchewan Drive

The restored home of Alberta's first premier, A.C. Rutherford, is located on the University campus. Staff in period costumes show visitors through the house. Until Labor Day, open daily 10 a.m. to 8 p.m. Group tours may be arranged by calling 427-5708 at least one week in advance. Free.

Lectures and Seminars

Department of Biochemistry
9 July. 4 p.m. Dr. Izchak Z. Steinberg, Professor of Chemical Physics, Weizmann Institute of Science, Rehobot, Israel will present a lecture entitled "Biophysical Aspect of the Role of Calcium in Presynaptic Transmission." 4-70 Medical Sciences Building.

Alberta Culture

24, 25, and 26 July. Advanced authors workshop featuring four professionals on Canadian writing. Queries to Alberta Culture, Film and Literary Arts, 12th Floor, CN Tower, 10004 104 Avenue, Edmonton, T5J 0K5.

Children's Events

Provincial Museum

Saturday mornings. 10 a.m. Crafts program. For information please call 427-1766.

Edmonton Public Library

Saturdays. 10 a.m. Children's Cinema. Centennial Library Theatre.
Saturdays. 1 p.m. Children's films and plays. Children's Library Theatre.

service
information

Coming Events

Music

Department of Music

8 July. 8 p.m. Summer Concert. Joan Pecover, flute; Robert Cockell, oboe; Ernest Dalwood, clarinet; Brian Berkowitz, bassoon; Gerald Onciul, French horn; Jane O'Dea, piano; and John Mahon, bass clarinet in works by Cantrell, Arnold (outside in front of Convocation Hall) Thuille and Janacek

29 June. 3 p.m. to 6 p.m. Teenagers are invited to audition for the voice cover for a television commercial. Interested persons should contact Iolani Domingo at 423-2331 to pre-register.

Department of Athletic Services
Until 22 August. A series of summer sports camps will be offered on campus to all children between the ages of eight and eighteen. For information, please call 432-5705 during office hours.

Non-Credit Courses Faculty of Extension

English as a Second Language
Courses will be offered in English as a second language during the summer term. Evening courses will run from 13 July to 26 August and daytime courses will run from 27 July to 26 August. The fee for each level course is \$65. For more information, please contact Professor Ruth Pearce, 432-2497, 432-3036, or 432-3116.

Devonian Botanic Garden "Pond Life"

Date: 4 July. Time: 10 a.m. to 3 p.m.
Fee: \$12. Telephone: 987-3054.

Computing Services Client Training Sessions

Computing Services is taking registrations between 8:30 a.m. and noon for the following non-credit courses. For further information, please telephone Information Services at 432-2463 or come to 319 General Services Building.

Introduction to Computing

Course number: 591. Date: 3 July.
Time: 10 a.m. to 12 noon. Fee: \$5.
Place: 351 GSB.

MTS and Editor Fundamentals

Course number: 592. Date: 8 and 10 July. Time: 10 a.m. to 12 noon.
Fee: \$10. Prerequisites: "Introduction to Computing" or equivalent working knowledge of a DECwriter terminal and MTS commands. Place: 351 GSB.

Efficient File Editing

Course number: 593. Date: 22 and 24 July. Time: 10 a.m. to 12 noon. Fee: \$10. Prerequisites: "MTS and Editor Fundamentals" course and a good working knowledge of the File Editor. Place: 327 GSB.

Advanced SPIRES

Course number: 594. Date: 17, 19, 21, 25, 27 August. Time: 1 p.m. to 4:40 p.m. Fee: \$35. Prerequisites: Introduction to SPIRES. Place: 328 GSB.

Introduction to SPIRES

Course number: 595. Date: 10 August. Time: 1 p.m. to 4 p.m. Fee: \$5. Prerequisites: MTS and Educational Fundamental Course and ability to use terminals and File Editor well.

Notices

Workers' Compensation Coverage for Students

Alberta Advanced Education and Manpower states that, effective 28 April 1981, all students registered and attending The University of Alberta will be covered under Workers' Compensation except those students injured while engaging or participating in extra curricular sporting, recreational or personal fulfilment activities which are not a current academic requisite or required as a part of the course of study in which the injured student is registered.

The authority for this coverage is Alberta Regulation 329/78.

It will therefore no longer be necessary for the University to submit courses with work experience or practical experience sections to Legislative Services for approval by the Workers' Compensation Board.

Please ensure that reports of injuries related to students are filed directly with the Workers' Compensation Board.

The above notice was received from the Director of Personnel Services and Staff Relations.

Max Wyman to Retire

Max Wyman is retiring at the end of August, after serving the University for 38 years. He and Mrs. Wyman will be honored at an informal reception at the Faculty Club on Tuesday, 4 August 1981 from 4 to 7 p.m.

Max and Ruth's friends, colleagues and acquaintances are cordially invited to join them on this occasion and to wish them well on Max's retirement.

Anyone wishing to contribute to a going away gift for Max and Ruth may do so by sending a cheque payable to The University of Alberta Wyman Retirement Fund and addressed to Mrs. June Butt, c/o The Office of the Vice-President (Finance and Administration), 3-12 University Hall.

Policy on Legal Opinions

There appear to have been a few cases recently where opinions have been sought from the University solicitors without the requisite authorization being obtained in advance. The policy on this matter is contained in Section 119, Subsection 2 of the Manual of Administrative Procedures, which reads in part as follows:

"The advice of the University solicitors and requests for action by the solicitors must be authorized by one of the following senior officers: Chairman of the Board, Chairman of a Board Committee, President, Vice-President, Associate Vice-President. Other administrative officers of the University including deans, chairmen, and officers of non-teaching departments must first obtain approval from the appropriate senior officer as noted above."

The above notice was received from the Vice-President (Finance and Administration).

Central Pension and Benefits Administration Office

Effective 1 July 1981, a new central Pension and Benefits Administration Office will be established. The new Office assumes the functions and responsibilities of the existing Pensions Division of the Office of the Comptroller, as well as certain functions currently carried out within the Payroll Division and the Office of Personnel Services and Staff Relations.

The new Director of Pensions and Benefits Administration is R.J. Falconer, formerly Pensions Officer. He will report to the Vice-President (Finance and Administration) through the Executive Assistant to the Vice-President (Finance and Administration), D.C. Norwood.

The new Benefits Office will be responsible for the administration of all benefits plans for both Academic Non-Academic Staff. Among others, they include group life insurance, group dental care, long-term disability insurance, supplementary health care, the Universities Academic Pension Plan, and the Public Service Pension Plan. The Office will also be responsible for enrolling all new staff, both Academic and Non-Academic, in the appropriate benefits plans, and for providing all information concerning benefits to staff.

While the new Office becomes operational on 1 July, a certain phasing-in period for some benefits and functions will be required. Disruption, however, is expected to be minimal and the Office should be completely functional by September.

Effective 2 July 1981, all enquiries regarding Pensions and Benefits should be directed to Mr. Falconer's office as follows: Pension and Benefits Administration, Room 131, Athabasca Hall, Telephones: 432-5634, 432-4756.

Research Grants

Granting Agencies:

Application Deadlines

This list of deadline dates for submissions to granting agencies for research funds, exchange programs, and travel grants is published every month in *Folio*. In order to allow sufficient time for processing, all applications should reach the Research Grants and Contracts Office at least ten days before the deadline date. Where other University resources are involved, the time requirement may be much longer than ten days and such applications should therefore be submitted well in advance. An extra copy of the application should be provided for the Research Grants and Contracts Office.

Further information may be obtained by consulting the *Calendar of Granting Agencies for Research Funds, Exchange Programs, and Travel Grants*, which is available in the offices of Deans, Directors of Institutes, Centres, and Schools, and Department Chairmen, or by telephoning the Research Grants and Contracts Office, 432-2002. Note:

Although the *Calendar* is updated on a continuous basis, the following information could be subject to change without notice. If staff members have advance information on forthcoming changes, the Research Grants and Contracts Office would appreciate being advised.
Code: (R) Research Funds; (E) Exchange Programs; (I) Travel Grants. The Calendar Source Number is also given in parentheses.

Granting Agency	Deadline Date
American Philosophical Society (R) 25	7 Aug. 9 Oct. 12 Dec. 6 Feb.
Distilled Spirits Council of the United States (R) 163	1 Aug. 1 Nov. 1 Feb. 1 May
The Sugar Association, Inc. (R) 405	15 Aug.

Surplus Equipment

The equipment appearing in this column is available only to University Departments with University Administered Funds. For further information about the purchase of equipment or the disposal of any of your department's surplus equipment, contact Bonnie O'Dwyer or Roy Bennett, telephone 432-3208.

(For people who wish to dispose of furniture, please note that most often furniture is assigned to Departments by the University. Surplus furniture is returned to a common pool and, if sold, the proceeds would not be passed on to the declaring Department.)

Philips Mini-log 4 Portable Cassette FM Instrumentation Recorder. Accessories: Remote control unit Microphone. Dr. B.K. Mitchell 432-4637.

Positions Vacant

Markers and Demonstrators

The Department of Physics anticipates a need for several part-time sessional markers and laboratory demonstrators during the Winter Session beginning in September.

Persons with a related degree, or senior undergraduates, who would be interested in this type of work should contact the Department of Physics, Room 412, Physics Building for an application form. Phone 432-5286.

Rates of pay will be commensurate with education and experience. Appointments will be made by early September.

Non-Academic Positions

To obtain further information on the following positions, please contact Personnel Services and Staff Relations, third floor, SUB, telephone 432-5201. Please do not contact the department

directly. Positions available as of 26 June 1981.

Sales Clerk (\$830.15-\$893.47)—Bookstore
Clerk Typist II (\$830.15-\$991.42)—Office of the Comptroller; Zoology; Purchasing; Romance Languages; Bookstore; Provincial Laboratory
Clerk Steno II (\$861.22-\$1,030.83)—Surgery; Mechanical Engineering; History; Elementary Education; Faculty of Extension (part-time, recurring term); Economics (recurring term)
Library Clerk III (\$893.47-\$1,069.05)—Geography
Senior Clerk (\$893.47-\$1,069.05)—Technical Services (Graphics Division); Parking Services (2 positions)
Switch Board Operator (\$893.47-\$1,069.05)—Administrative Services
Senior Financial Records Clerk (\$922.13-\$1,109.66)—Housing and Food Services; Office of the Comptroller; Physiology (part-time)
Clerk Typist III (\$922.13-\$1,109.66)—University Press; Office of the Comptroller; Central Stores
Admission Records Trainee (\$959.16-\$1,157.44)—Office of the Registrar (2 positions)
Student Records Processing Clerk (\$959.16-\$1,157.44)—Education—Student Records Office
Clerk Steno III (\$959.16-\$1,157.44)—Faculty of Nursing; Comparative Literature; Computing Science; Boreal Institute; Political Science; Civil Engineering; Education—Field Services (recurring term); Biochemistry; Rural Economy; Law; Faculté Saint-Jean; Dentistry; East Asian Languages and Literatures; Drama; Mineral Engineering (2 positions)
Accounts Clerk (\$991.42-\$1,205.22)—Office of the Comptroller (2 positions)
Systems Control Clerk (\$991.42-\$1,205.22)—Parking Services
Data Entry Operator II (\$991.42-\$1,205.22)—Computing Services (2 positions)
Systems Control Clerk I (\$991.42-\$1,205.22)—Personnel Services and Staff Relations (2 positions); Parking Services
Assistant to the Buyer (\$515.42-\$628.89)—Purchasing (Part-time)
Medical Steno (\$515.42-\$628.89)—Medicine (Part-time)
Payroll Clerk (\$1,069.05-\$1,309.14)—Office of the Comptroller

Library Assistant II (\$1,069.05-\$1,309.14)—Sociology
Administrative Clerk (\$1,069.05-\$1,309.14)—Physical Education; Personnel Services and Staff Relations; Housing and Food Services
Secretary (\$1,069.05-\$1,309.14)—Dean of Agriculture and Forestry; Physics; Cardiac Care Evaluation (Trust)
Departmental/Executive Secretary (\$1,205.22-\$1,484.74)—Physical Education; Senate
Art Technician Demonstrator I (\$654.57-\$808.67)—Art and Design (part-time, 2 positions)
Programmer/Analyst III (\$881.51-\$1,097.97)—Psychology (Part-time)
Building Services Worker II (\$959.16-\$1,157.44)—Building Services (Physical Plant); Housing and Food Services
Computer Assistant II (\$991.42-\$1,205.22)—Computing Services
Decontamination Services Worker I (\$1,030.83-\$1,257.77)—Radiation Control
Storeman II (\$1,030.83-\$1,257.77)—Pharmacy; Central Stores
Storeman II/III (\$1,030.83-\$1,484.24)—Technical Services (Equipment Inventory)
Animal Technician I (\$1,069.05-\$1,309.14)—Bioscience Animal Services
Technician I (\$1,069.05-\$1,309.14)—Provincial Laboratory; Mechanical Engineering (Term); Medicine (Trust); Home Economics (2 positions); Paleontological Collections (Geology)
Farm Technician I (\$1,069.05-\$1,309.14)—Animal Science (2 positions)
Chemical Technician I/Technologist I (\$1,069.05-\$1,309.14)—Microbiology (Trust)
Building Service Worker III (\$1,069.05-\$1,309.14)—Physical Plant (Building Services)
Control Centre Operator I (\$1,109.66-\$1,365.29)—Physical Plant (Operations)
Engineering Technologist I (\$1,157.44-\$1,423.29)—Physical Plant (Energy Management) (Term)
Building Services Worker IV (\$1,157.44-\$1,423.29)—Physical Plant (Building Services)
Laboratory Technologist I (\$1,205.22-\$1,484.74)—Provincial Laboratory (2 Positions)
Biochemistry Technologist I (\$1,205.22-\$1,484.74)—Biochemistry (2 Positions) (Trust)
Security Officer I (\$1,205.22-\$1,484.74)

—Campus Security (2 Positions)
Electron Microscope Technician I (\$1,205.22-\$1,484.74)—Pathology
Electronics Technician II/III (\$1,205.22-\$1,484.74)—Electrical Engineering
Draftsman II (\$1,257.77-\$1,550.43)—Design and Construction
Programmer/Analyst I (\$1,257.77-\$1,550.43)—Office of Administrative Systems
Art Technician Demonstrator I (\$1,309.14-\$1,617.33)—Drama (Term)
Dental Hygienist (\$1,309.14-\$1,617.33)—University Health Service (Term)
Nurse (\$1,309.14-\$1,617.33)—University Health Service (Term)
Electronics Technician II (\$1,309.14-\$1,617.33)—Chemistry
Technologist II (\$1,365.29-\$1,690.17)—Pediatrics (Trust); Biosafety Committee
Technologist II/III (\$1,365.29-\$1,690.17)—Plant Science (Trust)
Engineering Technologist III (\$1,484.74-\$1,843.07)—Design and Construction
Art Technician/Demonstrator II (\$1,484.74-\$1,843.07)—Drama
Programmer/Analyst II (\$1,484.74-\$1,843.07)—Office of Administrative Systems (3 Positions)
Programmer/Analyst II/III (\$1,484.74-\$1,843.07)—Office of the Registrar
Senior Coordinator (\$1,484.74-\$1,843.07)

—Office of the Registrar
Farm/Ranch Manager I (\$1,550.43-\$1,924.31)—Soil Science
Engineering Technologist IV (\$1,690.17-\$2,101.07)—Physical Plant (Energy Management)
Plant Operator II (\$1,690.17-\$2,101.07)—Physical Plant (Cooling Plant)
Building Superintendent (\$1,617.33-\$2,009.10)—Physical Plant (Building Services)
Interior Designer II (\$1,617.33-\$2,009.10)—Design and Construction
Programmer/Analyst III (\$1,763.03-\$2,195.45)—Office of Administrative Systems (2 Positions)
Programmer/Analyst III (\$1,763.03-\$2,629.04)—Office of Administrative Systems (2 Positions); Educational Research
Controlsfitter (\$2,312.27/month)—Physical Plant (Maintenance)

The following is a list of currently available positions in the University of Alberta Libraries. The bulletin board in the Cameron Library—Room 512 should be consulted for further information as to availability and position requirements.
Library Assistant II (\$1,069.05-\$1,309.14)
—Cataloguing

Advertisements

Advertisements must reach the Editor by 3 p.m. on the Thursday prior to publication date which date also serves as the deadline for cancellation of advertisements. The cost of placing advertisements is 30 cents per word with no discount for subsequent insertions. There are no refunds. There is maximum limit of 30 words and a minimum charge of \$1.50. Contributors' corrections will be assessed at \$1.50 for each line in which an alteration is made. Advertisements cannot be accepted over the telephone.

Accommodations available

For rent—House, furnished, Petrolia, August 81-82. Three bedrooms, 1½ baths, on crescent, good schools. \$650. 435-7561.
For rent—One bedroom, luxury, condominium, unfurnished, 15 June-15 August. Contact Brent Collingwood 455-4181 or 474-3507.
For sale—Garneau Gardens. 10611 84 Ave. Luxury condominiums. 2½% below prime financing. Underground parking, fireplaces, six appliances. Solarium windows. Possession 1 July. Two floor plans. Debra Lozinski 435-4869. Royal Trust.
For sale—Southgate location. Spotless, split level. Four bedrooms, 1½ baths, developed basement. Two car. Beautiful lot. July possession. \$124,900. Lange Realty. Jerry Wynn 437-0450, 463-0588.
For sale—Belgravia. Professionally remodelled. Four bedrooms. Two baths. Fireplace. New kitchen. Walk

to University. Lovely lot. \$149,700. Lange Realty. Jerry 437-0450, 463-0588.
Share—Modern house, with male, \$300, three bedroom, two baths. 469-1179 evenings.
For sale—Lendrum, open beam, split level home. \$115,500. Located on quiet residential street. Easy access to University. Denise Rout 435-6355
Spencer Realty 436-5250.
For sale—Saskatchewan Drive, 1,880 sq. ft., custom bungalow on beautifully landscaped lot, exceptional basement development, three baths, double garage. Phone Reina Proudfoot. Royal Trust 435-4869, 436-2556.
For sale—Grandview. Attractive, split-level home. Excellent location facing University farm. Lovely mature landscaping. Good potential. Price \$172,800. Call Faye Lund. Block Bros. Realty. 436-4240, 487-2422.
For rent—Large, one bedroom, basement suite. Four blocks south University Hospital. Female, non-smoker. All utilities, free laundry, parking. \$325. 434-3053.
For rent—One bedroom, well furnished suite. All appliances. Belgravia. \$185 including utilities, non-smoker. 435-0866.
For rent—Crumby, basement suite, \$220 month. Near University. 433-5637 after 5 p.m.
For rent—1 Sept. 1981-July 1982. Large furnished, four bedroom home, Aspen Gardens. 435-2412.
For sale—Owner. Three bedroom condominium. Blue Quill. \$58,800 (\$43,500, 10½%, 1983). 435-1853 evenings.
For rent—Room in comfortable co-op house. Close to University. Large

Campus Tours

Commencing July 6

Guided walking tours of The University of Alberta campus will be offered each day during the months of July and August.
Weekdays: 10:30 a.m., 1:30 p.m.
Saturdays and Sundays: 1:30 p.m.
Tours begin at the south end of the HUB shopping concourse and are approximately 1½ hours in length.

For more information: *Office of Community Relations* 432-2325.

backyard, many amenities. 434-0990.
 For sale—Belgravia. 1,889 sq. ft. Large bungalow. Main floor family room. Two fireplaces. Hardwood floors in living and dining rooms. Call Liz Crockford 436-5250, 434-0555. Spencer Real Estate.
 For sale—Saskatchewan Drive. A major estate. Over 30,000 sq. ft. of land. Call Liz Crockford 436-5250, 434-0555. Spencer Real Estate.
 For sale—Close to University. Three bedroom bungalow. Two fireplaces. \$72,000 mortgage at 10¼% until Sept. 1983. Call Liz Crockford 436-5250, 434-0555. Spencer Real Estate.
 For sale—Garneau. Two storey, original woodwork, hardwood floors, stained glass windows, three bedrooms (dormer) \$61,300 mortgage at 11½% till 1984. Call Pat Tietzen at A.E. LePage 437-7480 or res. 434-4825.
 Private sale—Beau Park—Near University. Asking \$97,000. Bungalow, basement suite, keyhole crescent. 437-6701.
 For sale—Garneau. By owner. Four year old, two storey house. Five bedrooms, two bathrooms, 2,000 sq. ft. High undeveloped basement, roughed in plumbing. Twin furnaces. \$144,900. Call 433-9670 after 4:30.

Accommodations wanted

Responsible, visiting professor and family require three bedroom, furnished home. August 1981-August 1982. References. Reply to Dr. F. Ellyin, 2041 Bretagne, Sherbrooke, Quebec. J1J 1R5. Phone (819) 565-1099.
 Wanted for visiting Heritage Scientist to rent or lease 2-3 bedroom house near University for one year beginning 1 Sept. 1981. For details please call Dr. E. McCoy, Department of Pediatrics 432-6631.
 Wanted to rent—Four bedroom house near University. For 1 August or 1 Sept. 1981. Phone 433-6757.

Goods for sale

Antiques; furniture, porcelain, glass, jewellery, silver, collectibles. Appraisals executed for insurance and identification. 12-5 p.m. Mary Goulden Antiques, 10437 142 St. 453-2008, res. 452-8549.
 Appraisals executed for insurance and identification. 12-5 p.m. Mary Goulden Antiques, 10437 142 St. 435-2008, res. 452-8549.
 Furniture: excellent condition. Two sofas with matching chairs, double size box spring and mattress, lamps, miscellaneous items. Res. 433-5591,

bus. 432-2970.
 Chesterfield, chair, coffee table, recliner. Good condition. Asking \$370. 432-3719, 488-1327.
 Atlas of Alberta (now out of print), \$18. Phone 436-0506.
 Omega, Speedmaster, automatic, dive-proof, day-date, chronograph. Also, Omega Constellation megaquartz, accuracy unexcelled: one second per year. Both perfect. Half prices. 439-1433.

Services

Donnic Typing Services Ltd. Specializing in word processing. 301A 10454 Whyte Avenue. 432-1419.

Kozak Business Services: Complete typing service available. Student discount. #305, 9924 106 Street. 433-3068, 487-1885.
 Singing teacher, Eileen Turner. 439-4661.
 Typing on word processor. Call Darlene 452-1074.
 Typing and photocopying at mark 9, 9004 112 St. HUB Mall. Experienced thesis typists. 432-7936.
 Babysitter wanted—In Windsor Park, near University residences—for 2½ year old girl—four hours/day, Monday-Friday. \$250/month, Sept.-April Call Denise 432-0806.
 Music lessons: theory, harmony, history, ear training. Liz Smolec 452-7680.

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